

$$\frac{1}{(1070)} \int mx^3 dx = \frac{mx^4}{4} + C$$

$$\frac{2}{(1070)} \int (x^2 - mx) dx = \frac{x^3}{3} - \frac{mx^2}{2} + C$$

$$\frac{3}{(1070)} \int m dx = mx + C$$

$$\frac{4}{(1070)} \int (m^2 + m^2 x) dx = m^2 x + \frac{m^2 x^2}{2} + C$$

$$\frac{5}{(1070)} \int \frac{x^2}{m} dx = \frac{x^3}{3m} + C$$

$$\frac{6}{(1070)} \int m(x-1) dx = \int (mx - m) dx = \frac{mx^2}{2} - mx + C$$

$$\frac{1}{(1071)} y = \int (2x - 5) dx = x^2 - 5x + C$$

צביה לתחילתה הנקודה ב- y של $x=3$:

$$6 = 3^2 - 5 \cdot 3 + C = 9 - 15 + C = -6 + C$$

$$\boxed{C = 12} \rightarrow \boxed{y = x^2 - 5x + 12}$$

$$\frac{2}{(1071)} f(x) = \int f'(x) dx = \int (3x^2 - 4x + 3) dx = x^3 - 2x^2 + 3x + C$$

$$f(-3) = 7 = (-3)^3 - 2(-3)^2 + 3(-3) + C = -27 - 18 - 9 + C \rightarrow \boxed{C = 61}$$

$$\boxed{y = x^3 - 2x^2 + 3x + 61}$$

$$\frac{3}{(1071)} \textcircled{1} f(x) = \int f'(x) dx = \int \frac{2x^2 - 5}{3} dx = \int \frac{1}{3} (2x^2 - 5) dx = \frac{1}{3} (x^3 - 5x) + C$$

$$f(3) = 2 = \frac{1}{3} (3^3 - 5 \cdot 3) + C = 9 - 5 + C \rightarrow \boxed{C = -2}$$

$$\boxed{f(x) = \frac{1}{3} x^3 - \frac{5}{3} x - 2}$$

$$\textcircled{2} f(0) = \frac{1}{3} \cdot 0^3 - \frac{5}{3} \cdot 0 - 2 = -2$$

$$\frac{4}{(1071)} y = \int y' dx = \int (3x^2 - 16x + 12) dx = x^3 - 8x^2 + 12x + C$$

$$y(2) = 0 = 2^3 - 8 \cdot 2^2 + 12 \cdot 2 + C \rightarrow \boxed{C = 0}$$

$$y = x^3 - 8x^2 + 12x$$

$$0 = x^3 - 8x^2 + 12x = x(x^2 - 8x + 12)$$

$$= x(x-6)(x-2)$$

נקודות החיתוך עם הציר ה- x : $(0,0)$, $(2,0)$, $(6,0)$